

Home New Workspace Browse Help Guided Tour

Search Again

Use the links below to search for additional information on **radiation**.

- » [Encyclopædia Britannica](#)
- » [Britannica Student Encyclopedia](#)
- » [Britannica Concise Encyclopedia](#)
- » [Britannica Elementary Encyclopedia](#)
- » [Britannica Internet Guide](#)
- » [Video & Media](#)



Unsure of the meaning of a word?
Double-click it to look it up in
Merriam-Webster's Collegiate Dictionary.

Encyclopædia Britannica

radiation

 Encyclopædia Britannica Article

[Article](#) [Images](#) [Index Entry](#) [Tables](#)

[E-mail this article](#) [Print this article](#) [Cite this article](#)

either the process by which energy is emitted from a source and propagated through the surrounding medium or the energy involved in this process. Familiar examples of radiant energy include light (a form of electromagnetic **radiation**) and sound (a form of acoustic **radiation**). Both electromagnetic and acoustic **radiations** are commonly described as waves that can vary over great ranges of either frequency or intensity. Electromagnetic **radiation** also is often treated as discrete packets of energy, called photons, or quanta. At very high frequencies, the energy of electromagnetic **radiation** becomes equivalent to appreciable quantities of mass, and the distinction between waves and particles becomes arbitrary. Much of the **radiation** emitted by radioactive elements takes the form of alpha rays, beta rays, and streams of other subatomic particles.

Radiation is treated in several articles. For the origin, nature, and propagation of energy in the form of gamma rays, X rays, ultraviolet rays, visible light, heat, radio waves, and the like, see [electromagnetic radiation](#); [light](#); [radioactivity](#). For corresponding treatment of acoustic **radiations**, see [acoustics](#). For discussion of the interaction of electromagnetic waves and subatomic particles with matter, living and nonliving, see [radiation](#).


 [Back to top](#)

To cite this page:

MLA style: "Radiation." *Encyclopædia Britannica*. 2003. Encyclopædia Britannica Online. 02 Jun, 2003
<<http://www.search.eb.com/eb/article?eu=63977>>.

APA style: Radiation. Encyclopædia Britannica. Retrieved June 2, 2003, from Encyclopædia Britannica Online.
<<http://www.search.eb.com/eb/article?eu=63977>>

Britannica style: "radiation" *Encyclopædia Britannica* from Encyclopædia Britannica Online.
<<http://www.search.eb.com/eb/article?eu=63977>>
[Accessed June 2, 2003].

 [Back to top](#)

[Comments & Questions](#) | [Subscription Form](#)

© 2003 Encyclopædia Britannica